

Date: Sat, 21 Aug 93 04:30:21 PDT
From: Ham-Equip Mailing List and Newsgroup <ham-equip@ucsd.edu>
Errors-To: Ham-Equip-Errors@UCSD.Edu
Reply-To: Ham-Equip@UCSD.Edu
Precedence: Bulk
Subject: Ham-Equip Digest V93 #17
To: Ham-Equip

Ham-Equip Digest Sat, 21 Aug 93 Volume 93 : Issue 17

Today's Topics:

 2M interference from answering machines
 Challenge -- Lowest-cost HF option to get on air?
 Earlier Ten-Tec radios
 FCC Collins 851S-1 and 851S-2 receivers
 Realistic TRC-480 Service Manual needed
 Switching frequency possible? (3 msgs)

Send Replies or notes for publication to: <Ham-Equip@UCSD.Edu>
Send subscription requests to: <Ham-Equip-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Equip Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-equip".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Fri, 20 Aug 93 20:31:57 GMT
From: swrinde!elroy.jpl.nasa.gov!usc!sol.ctr.columbia.edu!news.kei.com!ub!
galileo.cc.rochester.edu!cookiemonster.umd.rochester.edu!owens@network.ucsd.edu
Subject: 2M interference from answering machines
To: ham-equip@ucsd.edu

Lawrence The Dreamer Chen (dreamer@lhaven.UUmh.Ab.Ca) wrote:

>Switching to the old antenna and using my body as an attenuator...I found a
>solid and tight signal on 145.010 emanating from my GE Answering Machine.
>
>Somewhere else in the house is a tight signal on 147.060 (meaning its not
>present 5kHz up or down).....which happens to be the output frequency of the
>main repeater.

This sounds very much like the situation at my father's house except
that he had an easier time pinpointing the offending equipment, which
was a brand new a GE answering machine (GE Pro Series Telephone/Answering

System Model 2-9895). It has a strong, fairly narrow signal on 147.080, which varies up and down depending on temperature. Unfortunately, it occasionally moves on top of one of the big local repeaters. Ferrite on the cords doesn't work, and he hasn't tried any real shielding yet.

Has anyone compiled a list of consumer electronics with similar annoying interference? While I doubt the manufacturers would care, it could be useful when shopping. Certainly I'll avoid GE answering machines from now on...

Bill N2RKL

Bill Owens
727 Elmwood Avenue
Rochester, NY 14620

owens@cc.rochester.edu
MIME and PEM accepted
716/275-9120

Date: Fri, 20 Aug 1993 16:55:43 GMT
From: usc!howland.reston.ans.net!vixen.cso.uiuc.edu!bradley.bradley.edu!
augustana.edu!gganderson@network.ucsd.edu
Subject: Challenge -- Lowest-cost HF option to get on air?
To: ham-equip@ucsd.edu

Let me pose this question to this group to see what comes of it:

What is the lowest and reasonable costing option to get on the air to do 40m CW? How does that change to also want to add 10m CW and SSB?

Qualifiers:

By reasonable, I mean a rig sufficient in power to make a reasonable number of regular contacts as to not get discouraged in the hobby. QRP, where I know some equipment is low-cost, may qualify if contacts are possible under my criteria of contacts. What's a sufficient number of contacts? You tell me, as you are on the air.

By 40 and 10meters, I mean the novice sub bands, as I am just licensed for novice privileges.

New or used equipment could qualify here.

I am after a FULL setup -- rig, power supply, key (straight or paddle), antenna, tuner if needed, etc. What it takes to get fully on the air. What's the total bill?

Why ask? QST recently (within last year) had an article that talked about cost of getting into the hobby. They compared cost of major pieces of equipment (ICOMS, etc) against the cost of living index, etc., for today and say ten years ago. Their conclusion was basically no difference in terms of number of weeks of salary.

To me the cost of getting on the air is real and not trivial, at least from my looking at catalogs, but I would like your opinion and suggestions. Besides, this is a challenge for you to consider.

Thanks. Kevin Anderson, newly licensed KB9IUA
Augustana College, Geography Dept., Rock Island, Illinois
gganderson@augustana.edu

Date: Fri, 20 Aug 1993 20:53:42 GMT
From: swrinde!cs.utexas.edu!math.ohio-state.edu!howland.reston.ans.net!
vixen.cso.uiuc.edu!bradley.bradley.edu!augustana.edu!gganderson@network.ucsd.edu
Subject: Earlier Ten-Tec radios
To: ham-equip@ucsd.edu

I am looking for specifics on earlier Ten Tec radios, in particular the 525 Argosy I Analog and 525D Argosy II Digital, and the Century 21 and 22 Series (models 570 Analog CW, 574 Digital CW, and 529). I am looking not for just recommendations, but actual information on bands covered, needed power supplies, filters, modes available, available accessories, etc., as well. These radios have been suggestions to me for possible used purchases, and I am trying to collect information. I do not have access to earlier ham radio magazines to check advertisements that might have been published at the time these radios were produced.

Thank you. Please e-mail directly if possible so that I don't miss a posting or add unnecessarily to bandwidth.

Kevin, KB9IUA
gganderson@augustana.edu

Date: 19 Aug 93 05:50:41 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!noc.near.net!
transfer.stratus.com!jjmhome!pig!die@network.ucsd.edu

Subject: FCC Collins 851S-1 and 851S-2 receivers
To: ham-equip@ucsd.edu

The unit

I recently acquired a FCC surplus Collins 851S-1 receiver once used by the FCC in Florida from an ad in the local want ad paper. It is a 19 inch rack mounted fully synthesized 15 khz to 30 mhz HF CW/SSB/AM receiver tunable in 1 hz steps that was built in 1981. Frequency display is on orange LED digits with adaptive variable rate tuning via a large spinner knob. The unit has a synthesized BFO offsetable in 1 hz steps from 0 to 9999 hz (the offset is displayed in LEDs), and has a built in speaker as well as the usual headphone and 600 ohm line outputs.

As the FCC bought them, they seem to have 6 khz, 3 khz, 1 khz 500 hz and 200 hz symmetrical mechanical filters, and 2.4 khz USB and LSB filters. The unit will support ISB operation, but may not have the card installed. The FCC version seems to use half octave RF front end filters.

The unit has a black front panel with the displays and LED mode indicators under smoked plexiglass. There is an incandescent lamp illuminated S/audio level meter on the the left hand side with standard ham S units and dbuv scales. The tuning knob is on the right.

The receiver can be computer controlled, but unfortunately the FCC seems not to have installed that option in my unit. Control is via a serial port.

The synthesizer is a decade mix and divide design typical of early 70's pre-variable radix IC synthesizers. Collins quotes 2 ms settling time and seems to have included provisions for frequency hopping at a 100 hz or so rate via the serial port. Lord know what kind of phase noise it has, but some similar designs (eg Fluke) from that era were pretty respectable. The receiver conversion scheme is up from HF to 109 mhz first IF and then a 9 mhz second IF and 450 khz third IF.

The questions

1. Is anyone familiar with these radios ? How many were made and who used them ? The spooks (NSA and associated military security services) seem to have been using Racal HF receivers in this era; some of those radios are beginning to show in surplus. So who used the Collins units (obviously at least one was used by the FCC) ?

2. How long did the FCC use them ? and for what ?

3. Is there someone out there who has used one ? How did they compare in performance to the Racals ? What are their strengths and weaknesses ? The Racal units seem to be a much more modern design (allege to use DDS for example), why did Collins lag behind with such an old design ?

4. Does anyone know of sources of the remote control boards ?

5. Where does one get spare parts ?

6. Are there collectors who are interested in these radios ? Have others appeared in surplus ? Are they worth keeping or just selling to a Collins collector ?

David I. Emery - N1PRE - Lexington Mass.

Former senior technical consultant (and currently unemployed drunken bum)

Internet: jjmhome!pig!die@transfer.stratus.com (preferred) or die@world.std.com

UUCP: ...uunet!stratus.com!jjmhome!pig!die Phone + fax: 1+(617)-863-9986

Date: Fri, 20 Aug 1993 17:35:48 GMT
From: newsflash.concordia.ca!hobbit.ireq.hydro.qc.ca!
root%fresnel.telecom.hydro.qc.ca@uunet.uu.net
Subject: Realistic TRC-480 Service Manual needed
To: ham-equip@ucsd.edu

Hi There!

This is my first posting! I'm looking for the service manual of my Realistic TRC-480 AM-SSB Mobile CB transceiver. I want to modify it for 10 meters FM operation. I am planning to use it as simplex phone patch. You can also reach me on packet radio at: VE2BAP @ VE2UMS.PQ.CAN.NA. I don't know if my mail service is working fine since i have a lot of trouble with it. THANX! and 73's.

Date: 20 Aug 1993 13:31:07 GMT
From: swrinde!gatech!news-feed-1.peachnet.edu!concert!lester.appstate.edu!
usenet@network.ucsd.edu
Subject: Switching frequency possible?
To: ham-equip@ucsd.edu

In <CC20u7.DrG@feenix.metronet.com> marcdbg@feenix.metronet.com writes:

> In article <251mi9INNf68@jhunix.hcf.jhu.edu> edwong@jhunix.hcf.jhu.edu (Eddy Y Wong) writes:

> >I'm hoping that somebody can help me out with this question. I have an
> >opportunity to purchase a Motorola Minitor I voice pager for a really cheap
> >price. The pager is in the 30 Mhz freq range, but the freq that I want to
> >monitor is in the 150 Mhz range. I would like to know if it is possible to
> >recrystallize these pagers without any need for major re-tuning of the
receiver.

>

Stuff deleted....

Motorola Minitor pagers, when opened up, have two separate PC boards inside.
One is the RF board and this mates by way of plug connections to an audio board
which has the particular tone alerting reeds and the audio amp on it.

There are several ways to accomplish the goal at hand:

1. Swap the low band pager for a high band pager.
2. Swap the low band pager rf-if board for one from a vhf pager.

In my opinion, regardless of the technical feasibility of swapping coils,
capacitors, etc, it is not worth trying to do an on-the-board mod from low
to high band.

>Also, if the receiver needs to be re-tuned, how much would it cost. So, if you
> >can provide me some help on (1) if it is possible to just switch freqs and
> >(2) if you have any knowledge about the Minitor I and how much it would cost
> >to perform the modifications.

As stated by others, probably \$50 for an in-band recrystalling and tuning.
Quite a bit more for the complete mod from low to high band.

Many of the larger hamfests around here frequently have Minitor I's for
sale. Also, unless I am mistaken, the even older Pagecom (tone alert with
voice but no squelch so there is no monitorin capability) used the same
rf-if board as did the later Minitor I, so you may be able to find a Pagecom
pager on high band very cheaply, take out the rf board and put it in your
Minitor I, get it recrystalled and have a personal monitoring receiver.

My impression is that the Pagecom and Minitor I's are not that hard to come
by because many emergency service personnel have switched to the smaller
Minitor II which also allows them to monitor a second channel.

Marv Hoffman, KD4EGV
Appalachian State University
Boone, NC

Date: 20 Aug 1993 01:13:45 -0400
From: tulane!wupost!howland.reston.ans.net!europa.eng.gtefsd.com!
mozart.amil.jhu.edu!jhunix.hcf.jhu.edu!jhunix.hcf.jhu.edu!not-for-mail@ames.arpa
Subject: Switching frequency possible?
To: ham-equip@ucsd.edu

I'm hoping that somebody can help me out with this question. I have an opportunity to purchase a Motorola Minitor I voice pager for a really cheap price. The pager is in the 30 Mhz freq range, but the freq that I want to monitor is in the 150 Mhz range. I would like to know if it is possible to recrystallize these pagers without any need for major re-tuning of the receiver. Also, if the receiver needs to be re-tuned, how much would it cost. So, if you can provide me some help on (1) if it is possible to just switch freqs and (2) if you have any knowledge about the Minitor I and how much it would cost to perform the modifications, I would greatly appreciate it if you could send info to my UNIX account. Thanks.

Eddy

--
Eddy Wong | UNIX: edwong@jhunix.hcf.jhu.edu
The Johns Hopkins University | VMS: edwong@jhuvms.hcf.jhu.edu
Baltimore, Maryland 21218 | VM: edwong@jhuvms.hcf.jhu.edu

Date: Fri, 20 Aug 1993 10:51:42 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!usenet.ins.cwru.edu!news.ecn.bgu.edu!
feenix.metronet.com!marcbg@network.ucsd.edu
Subject: Switching frequency possible?
To: ham-equip@ucsd.edu

In article <251mi9INNf68@jhunix.hcf.jhu.edu> edwong@jhunix.hcf.jhu.edu (Eddy Y Wong) writes:

>I'm hoping that somebody can help me out with this question. I have an
>opportunity to purchase a Motorola Minitor I voice pager for a really cheap
>price. The pager is in the 30 Mhz freq range, but the freq that I want to
>monitor is in the 150 Mhz range. I would like to know if it is possible to
>recrystallize these pagers without any need for major re-tuning of the receiver.
>Also, if the receiver needs to be re-tuned, how much would it cost. So, if you
>can provide me some help on (1) if it is possible to just switch freqs and
>(2) if you have any knowledge about the Minitor I and how much it would cost
>to perform the modifications, I would greatly appreciate it if you could

>send info to my UNIX account. Thanks.

Whew! Eddy, you're asking to move a little radio with a tight front end over 120 MHz. Can it be done? Yes, theoretically. Is it feasible? No way. Since it sounds like you don't have the necessary radio knowledge yourself you'll have to take it to a tech to work on it, and the chances you'll find someone is very slim. The cost would be prohibitive.

SO, my recommendation is find another voice pager that isn't necessarily such a good deal that operates between the frequency range of 150-174 MHz. This will be alot easier to convert to your frequency and pager technicians do this kind of work all the time. To converst a VHF-hi pager from one frequency to another usually runs from \$30-\$50 with crystals. Do convert a VHF-lo pager to VHF-hi could easily run over \$100 IF you can find someone to do the work.

Best 73,

--

Marc B. Grant, N5MEI	marcbg@feenix.metronet.com	214/231-3998 (voice)
P.O Box 850472	marcbg@esy.com	214/231-0025 (fax)
Richardson, TX 75085		

End of Ham-Equip Digest V93 #17
